EXHIBIT H

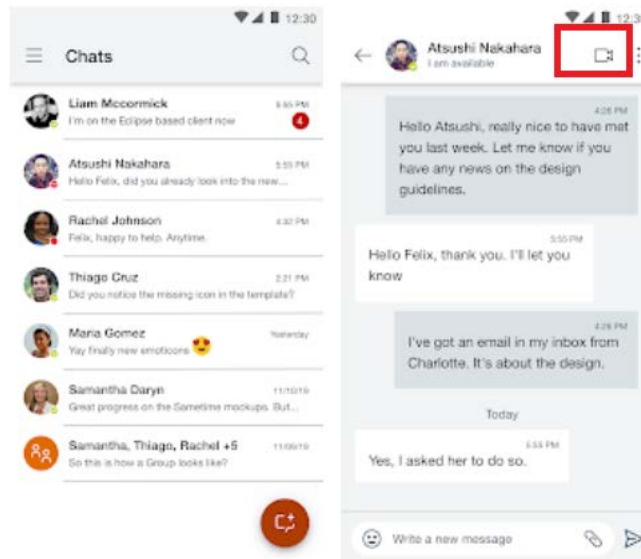| US9591551	HCL Sametime ("The Accused Product")
1. Computer program product embodied on a non-transitory storage medium, the computer program product when executing on a wireless device configured to enable the wireless device, when located in a region, to initiate a network connection without using a network operator's home location register that covers that region, the computer program product configured to:	The accused product discloses a computer program product (e.g., HCL Sametime) embodied on a non-transitory storage medium (e.g., Smartphone's memory), the computer program product (e.g., HCL Sametime) when executing on a wireless device (e.g., Smartphone) configured to enable the wireless device (e.g., Smartphone), when located in a region, to initiate a network connection (e.g., SIP Invite) without using a network operator's home location register that covers that region. The accused product uses Internet or IP network for calling. As shown below, the accused product doesn't make use of home location register (e.g., HLR). https://www.hcltechsw.com/products/sametime

HCL Sametime

HCL Software   **Communication**

3+

ⓘ This app is compatible with your device.

🔖 Add to Wishlist

Install

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.
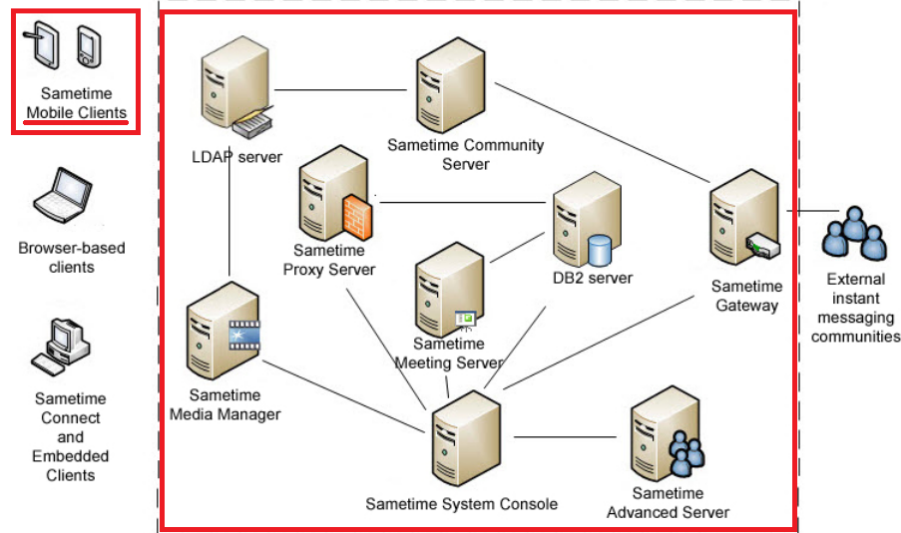
HCL Sametime works with your Sametime 10 and 11 server infrastructure.

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference *plus*:

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus*:

Presence and Instant Messaging
- Single, multi-file, and folder transfer
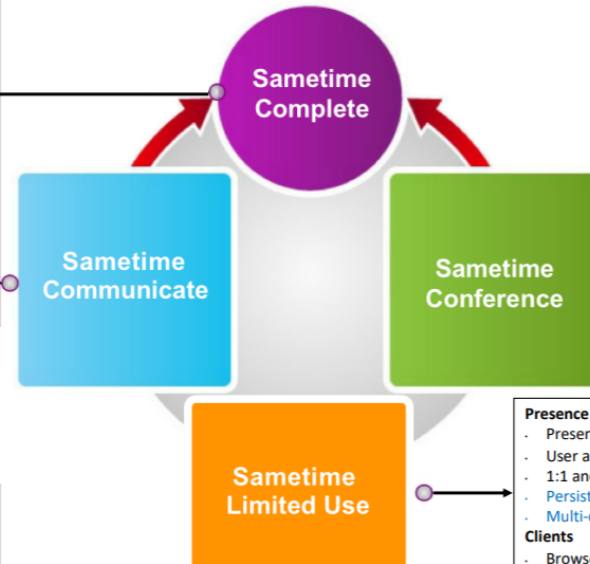- Screen capture and annotations
- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
- Multi-device chat (v10)
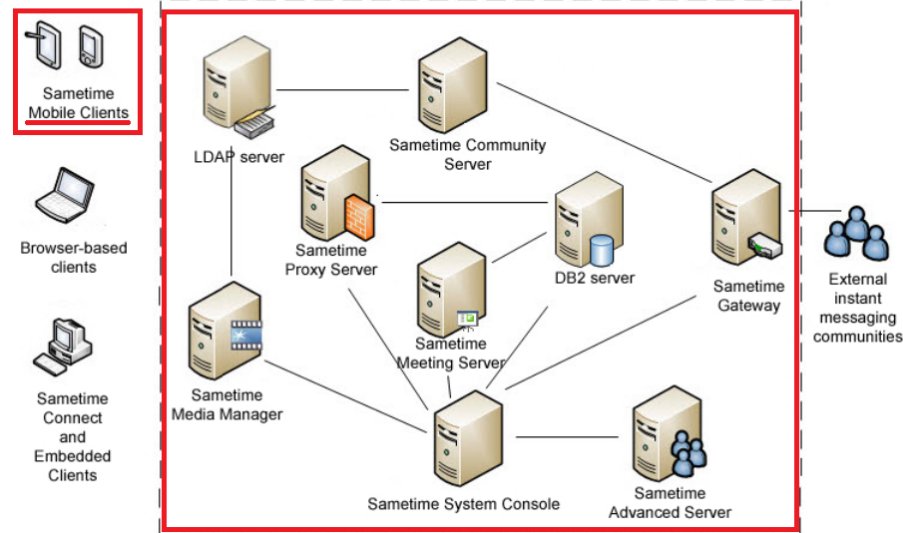
Clients
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                    SIP: Session Initiation Protocol

                    ┌─────────────────────────────────┐
                    │  atlanta.com  . . .  biloxi.com  │
               .    │     proxy               proxy    │    .
              .     └─────────────────────────────────┘     .
             .                                                 .
    Alice's  . . . . . . . . . . . . . . . . . . . . .  Bob's
    softphone                                           SIP Phone
    ┌──────────────────────────────────────────────────────────┐
    │   |         INVITE F1   |                   |           | │
    │   |-------------------->|     INVITE F2     |           | │
    │   |   100 Trying F3 |-------------------->|    INVITE F4  | │
    │   |<----------------|     100 Trying F5 |-------------------->| │
    │   |                 |<--------------   |   180 Ringing F6 | │
    │   |                 |  180 Ringing F7 |<----------------| │
    │   |  180 Ringing F8 |<----------------|     200 OK F9   | │
    │   |<----------------|     200 OK F10  |<----------------| │
    │   |   200 OK F11    |<----------------|                 | │
    │   |<----------------|                 |                 | │
    │   |                    ACK F12         |                 | │
    │   |----------------------------------------------------->| │
    │   |                  Media Session                       | │
    │   |<====================================================>| │
    │   |                    BYE F13                           | │
    │   |<-----------------------------------------------------| │
    │   |                    200 OK F14                        | │
    │   |----------------------------------------------------->| │
    └──────────────────────────────────────────────────────────┘
```

https://tools.ietf.org/html/rfc3261

(a) contact a server to communicate with the server over a wireless link, and	The accused product contacts a server (e.g., HCL Sametime Server) to communicate with the server (e.g., HCL Sametime Server) over a wireless link (e.g., Wi-Fi/Cellular link).

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Sametime Communicate & Conference *plus*:

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus*:

Presence and Instant Messaging
- Single, multi-file, and folder transfer
- Screen capture and annotations
- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
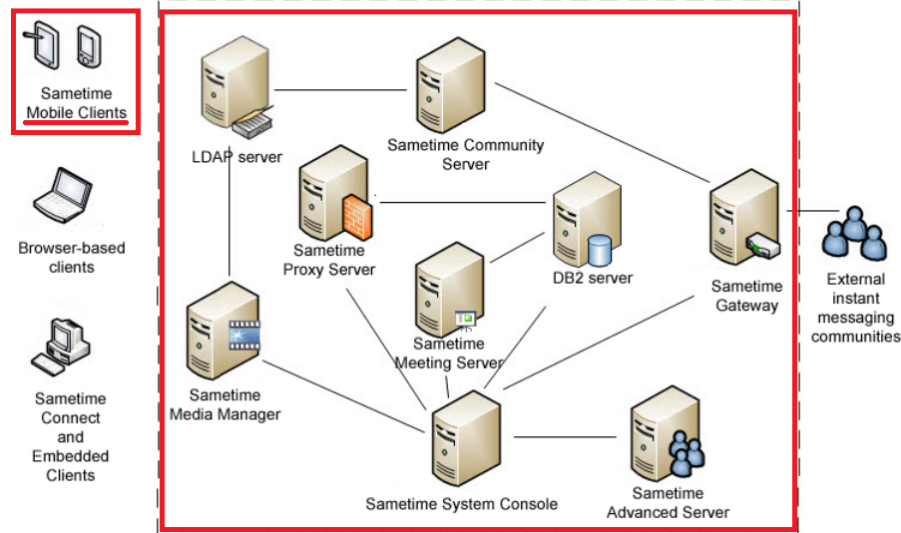- Multi-device chat (v10)

Clients
- Browser client

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

	``
                    SIP: Session Initiation Protocol

                   atlanta.com . . . biloxi.com
              .   proxy   proxy   .
            .   .
   Alice's . . . . Bob's
   softphone   SIP Phone
        | | |
        | INVITE F1 | |
        |---------------------->| INVITE F2 |
        | 100 Trying F3 |---------------------->| INVITE F4
        |<----------------------| 100 Trying F5 |---------------------->|
        | |<----------------------| 180 Ringing F6
        | | 180 Ringing F7 |<----------------------|
        | 180 Ringing F8 |<----------------------| 200 OK F9
        |<----------------------| 200 OK F10 |<----------------------|
        | 200 OK F11 |<----------------------|
        |<----------------------| |
        | ACK F12 |
        |-->|
        | Media Session |
        |<===>|
        | BYE F13 |
        |<--|
        | 200 OK F14 |
        |-->|
```
|
| (b) send, over the wireless link, data to the server that defines a call request; | The accused product sends, over the wireless link (e.g., Wi-Fi/Cellular link), data to the server (e.g., HCL Sametime Server) that defines a call request (e.g., Invite signal from caller to server). |

## Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.



https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

## IBM/HCL Sametime Product Family Today

HCL

**Sametime Communicate & Conference plus:**

**Chat / Meetings Integration**
- Multi-party video calls via Chat
- Instant screen / application sharing

**Eclipse-based Meeting Experience**
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

**Sametime Limited Use plus:**

**Presence and Instant Messaging**
- Single, multi-file, and folder transfer
- Screen capture and annotations
- Federation with 3rd-party services

**Social Tools**
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

**Audio, Video and Telephony via Chat**
- Peer-to-peer voice and video
- SIP softphone (voice and video)

**Clients**

**Sametime Complete**

**Sametime Communicate**

**Sametime Conference**

**Sametime Limited Use**

**Meetings**
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

**Audio and Video via Meetings**
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

**Clients**
- Browser client
- Mobile clients (iOS, Android)

**Integration**
- Client and server-side toolkits

**Presence and Instant Messaging**
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
- Multi-device chat (v10)

**Clients**
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                    SIP: Session Initiation Protocol


                       .--------------------------.
                       | atlanta.com  . . .  biloxi.com |
                    .  |   proxy              proxy     |  .
                     . '--------------------------------' .
                    .                                      .
         Alice's   . . . . . . . . . . . . . . . . . . . .   Bob's
         softphone                                           SIP Phone
          .--------------------------------------------------------.
          |     INVITE F1  |                |                 |     |
          ||-------------->|    INVITE F2   |                 |     |
          |  100 Trying F3 ||-------------->|    INVITE F4    |     |
          ||<--------------|  100 Trying F5 ||--------------->|     |
          |                ||<------------- | 180 Ringing F6  |     |
          |                | 180 Ringing F7 ||<---------------|     |
          |  180 Ringing F8||<--------------|    200 OK F9    |     |
          ||<--------------|   200 OK F10   ||<---------------|     |
          |   200 OK F11   ||<--------------|                 |     |
          ||<--------------|                |                 |     |
          |                     ACK F12     |                 |     |
          ||------------------------------------------------->|     |
          |                   Media Session                   |     |
          ||<================================================>|     |
          |                      BYE F13                       |     |
          ||<-------------------------------------------------|     |
          |                     200 OK F14                     |     |
          ||------------------------------------------------->|     |
          '--------------------------------------------------------'
```

https://tools.ietf.org/html/rfc3261

wherein, in response to the call request, a software application running on the server decides on the appropriate routing to a 3rd party end-user for	In response to the call request (e.g., Invite signal from caller to server), a software application (e.g., software running at HCL Sametime server to route/manage calls) running on the server (e.g., HCL Sametime Server) decides on the appropriate routing (e.g., Invite signal from server to callee) to a 3rd party end-user (e.g., Other users using HCL Sametime) for that call request (e.g., Invite signal from caller to server) without using the network operator's home or visitor location register.

| that call request without using the network operator's home or visitor location register. | ## Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html |

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference *plus:*

Chat / Meetings Integration
· Multi-party video calls via Chat
· Instant screen / application sharing

Eclipse-based Meeting Experience
· Attend meetings
· Manage meeting rooms
· Calendar integration
· Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus:*

Presence and Instant Messaging
· Single, multi-file, and folder transfer
· Screen capture and annotations
· Federation with 3rd-party services

Social Tools
· Community announcements
· Community chat
· Skill Tap
· Instant Polls
· Persistent chat rooms

Audio, Video and Telephony via Chat
· Peer-to-peer voice and video
· SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
· Reservation-less, persistent rooms
· Multiple rooms per user
· Document, screen, and application sharing
· Integration with Connections Files
· Polls, hand raise, annotation tools
· Recordings and meeting reports
· Meeting chat
· Meeting minutes and action items
· Lecture-mode meetings

Audio and Video via Meetings
· Multi-party voice and video
· Software Video MCU / Video Manager (Polycom)
· Dial-out to audio conferencing bridges
· Bandwidth management (meetings)

Clients
· Browser client
· Mobile clients (iOS, Android)

Integration
· Client and server-side toolkits

Presence and Instant Messaging
· Presence awareness including automated geographic awareness
· User alerts and privacy lists
· 1:1 and group chat
· Persistent chat (v10)
· Multi-device chat (v10)

Clients
· Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
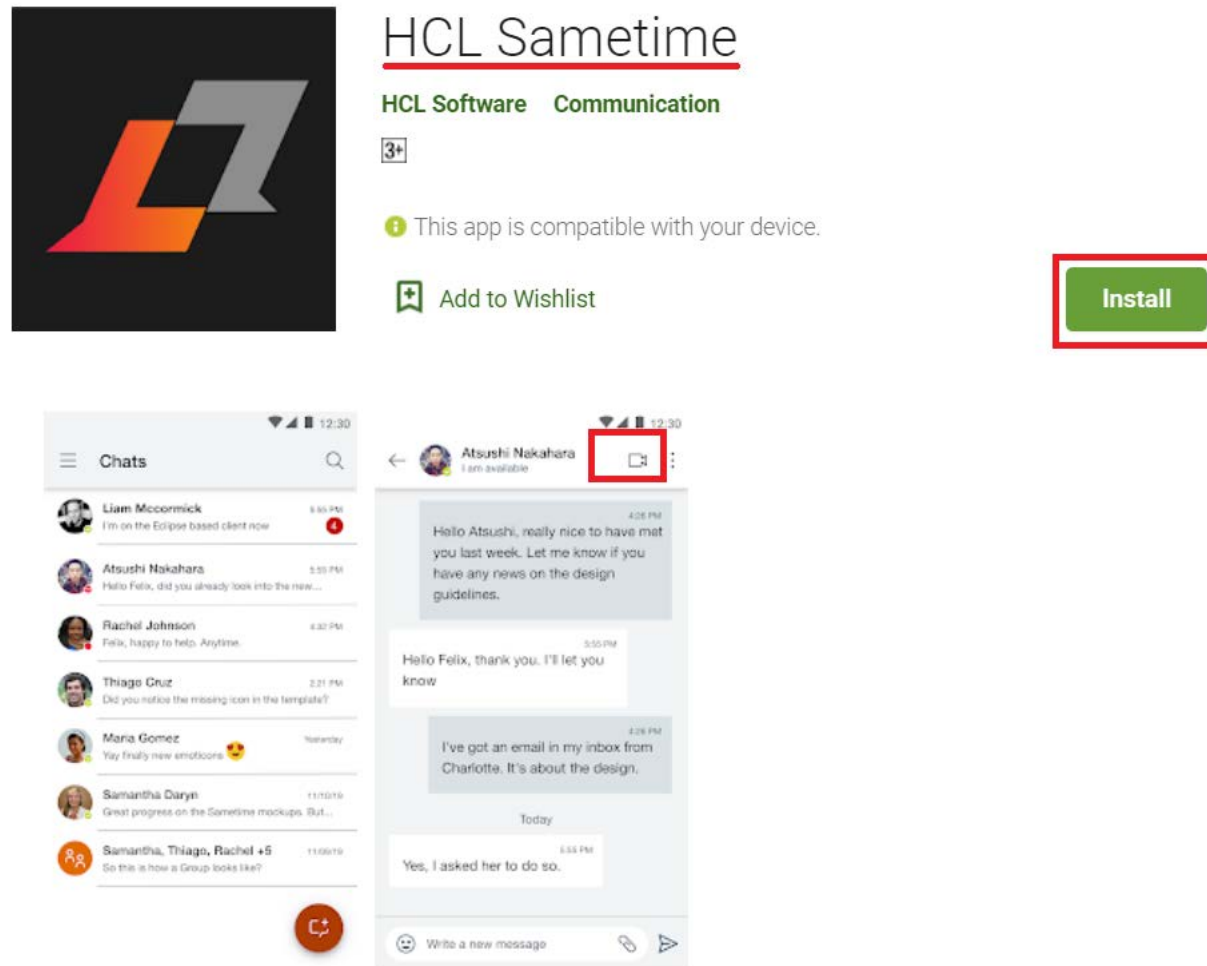                       SIP: Session Initiation Protocol


                      atlanta.com  . . .  biloxi.com
                   .     proxy               proxy      .
                 .                                        .
          Alice's  . . . . . . . . . . . . . . . . . . . Bob's
          softphone                                     SIP Phone
                  |        INVITE F1      |          |          |
                  |------------------->|     INVITE F2      |          |
                  |   100 Trying F3  |------------------->|    INVITE F4      |
                  |<---------------|    100 Trying F5  |------------------->|
                  |                |<--------------- |  180 Ringing F6 |
                  |                | 180 Ringing F7 |<---------------|
                  |   180 Ringing F8 |<--------------- |    200 OK F9     |
                  |<---------------|    200 OK F10    |<---------------|
                  |   200 OK F11    |<--------------- |          |          |
                  |<---------------|          |          |          |
                  |              ACK F12                              |
                  |-------------------------------------------------->|
                  |              Media Session                        |
                  |<=================================================>|
                  |              BYE F13                              |
                  |<--------------------------------------------------|
                  |              200 OK F14                           |
                  |-------------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

| 3. Computer program product of claim 1, wherein the computer program product is downloadable to the wireless device. | The computer program product (e.g., HCL Sametime) is downloadable (e.g., install) to the wireless device (e.g., Smartphone). |

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

4. Computer program product of claim 1, wherein the computer	The computer program product (e.g., HCL Sametime) is embedded to the wireless device (e.g., Smartphone).

program product is embedded in the wireless device.	https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en
5. Computer program product of claim 1,	Computer program product (e.g., HCL Sametime) uses an application server (e.g., HCL Sametime Server).

wherein the server is an application server.	**Sametime server architecture** A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients. The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients. https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html
7. Computer program product of claim 1, wherein the wireless device uses the internet to communicate with the server.	Computer program product (e.g., HCL Sametime) uses the wireless device (e.g., Smartphone) uses the internet (e.g., Wi-Fi/Cellular) to communicate with the server (e.g., HCL Sametime Server).
9. Computer program product of claim 1, wherein the computer program product is	The computer program product (e.g., HCL Sametime) is configured to receive calls (e.g., voice calls) at the wireless device (e.g., Smartphone).

configured to receive calls at the wireless device.	 https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf
12. Computer program product of claim 1, wherein the computer program product is configured to provide messages over the internet, or HTTP over the internet communication from the wireless device to the server.	The computer program product (e.g., HCL Sametime) is configured to provide messages (e.g., Instant Messages (IM)) over the internet (e.g., Wi-Fi/Cellular) from the wireless device (e.g., Smartphone) to the server (HCL Sametime Server).

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

14. Computer program product of claim 1, wherein the computer program product is configured to establish and control communication between the wireless device and the server.	The computer program product is configured to establish and control communication (e.g., SIP communication) between the wireless device (e.g., Smartphone) and the server (e.g., HCL Sametime Server).

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference *plus:*

Chat / Meetings Integration
· Multi-party video calls via Chat
· Instant screen / application sharing

Eclipse-based Meeting Experience
· Attend meetings
· Manage meeting rooms
· Calendar integration
· Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus:*

Presence and Instant Messaging
· Single, multi-file, and folder transfer
· Screen capture and annotations
· Federation with 3rd-party services

Social Tools
· Community announcements
· Community chat
· Skill Tap
· Instant Polls
· Persistent chat rooms

Audio, Video and Telephony via Chat
· Peer-to-peer voice and video
· SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
· Reservation-less, persistent rooms
· Multiple rooms per user
· Document, screen, and application sharing
· Integration with Connections Files
· Polls, hand raise, annotation tools
· Recordings and meeting reports
· Meeting chat
· Meeting minutes and action items
· Lecture-mode meetings

Audio and Video via Meetings
· Multi-party voice and video
· Software Video MCU / Video Manager (Polycom)
· Dial-out to audio conferencing bridges
· Bandwidth management (meetings)

Clients
· Browser client
· Mobile clients (iOS, Android)

Integration
· Client and server-side toolkits

Presence and Instant Messaging
· Presence awareness including automated geographic awareness
· User alerts and privacy lists
· 1:1 and group chat
· Persistent chat (v10)
· Multi-device chat (v10)

Clients
· Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

https://tools.ietf.org/html/rfc3261

22. A method of enabling a wireless device, located in a region, to initiate a network connection without using a network operator's home location	The accused product discloses a method of enabling a wireless device (e.g., Smartphone), located in a region, to initiate a network connection (e.g., SIP Invite) without using a network operator's home location register that covers that region. The accused product uses Internet or IP network for calling. Hence, it bypasses network operator's home location register as Wi-Fi/Cellular or internet based calling does not require home location register (HLR).

register that covers that region, comprising the steps of:	 https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.

HCL Sametime works with your Sametime 10 and 11 server infrastructure.

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference plus:
Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing
Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use plus:
Presence and Instant Messaging
- Single, multi-file, and folder transfer
- Screen capture and annotations
- Federation with 3rd-party services
Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms
Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)
Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings
Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)
Clients
- Browser client
- Mobile clients (iOS, Android)
Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
- Multi-device chat (v10)
Clients
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
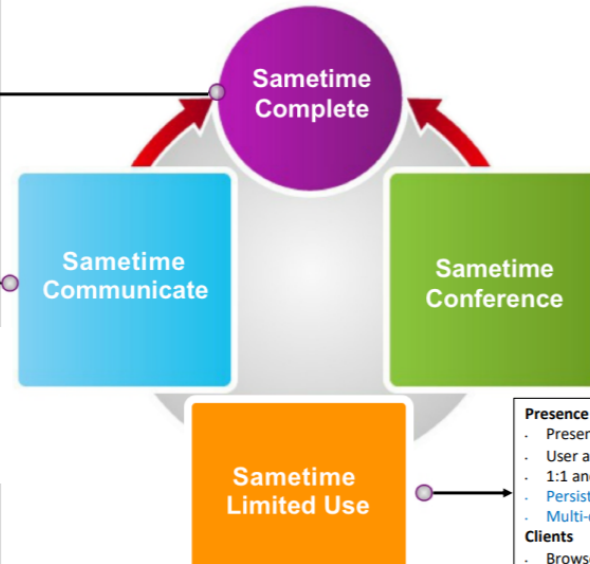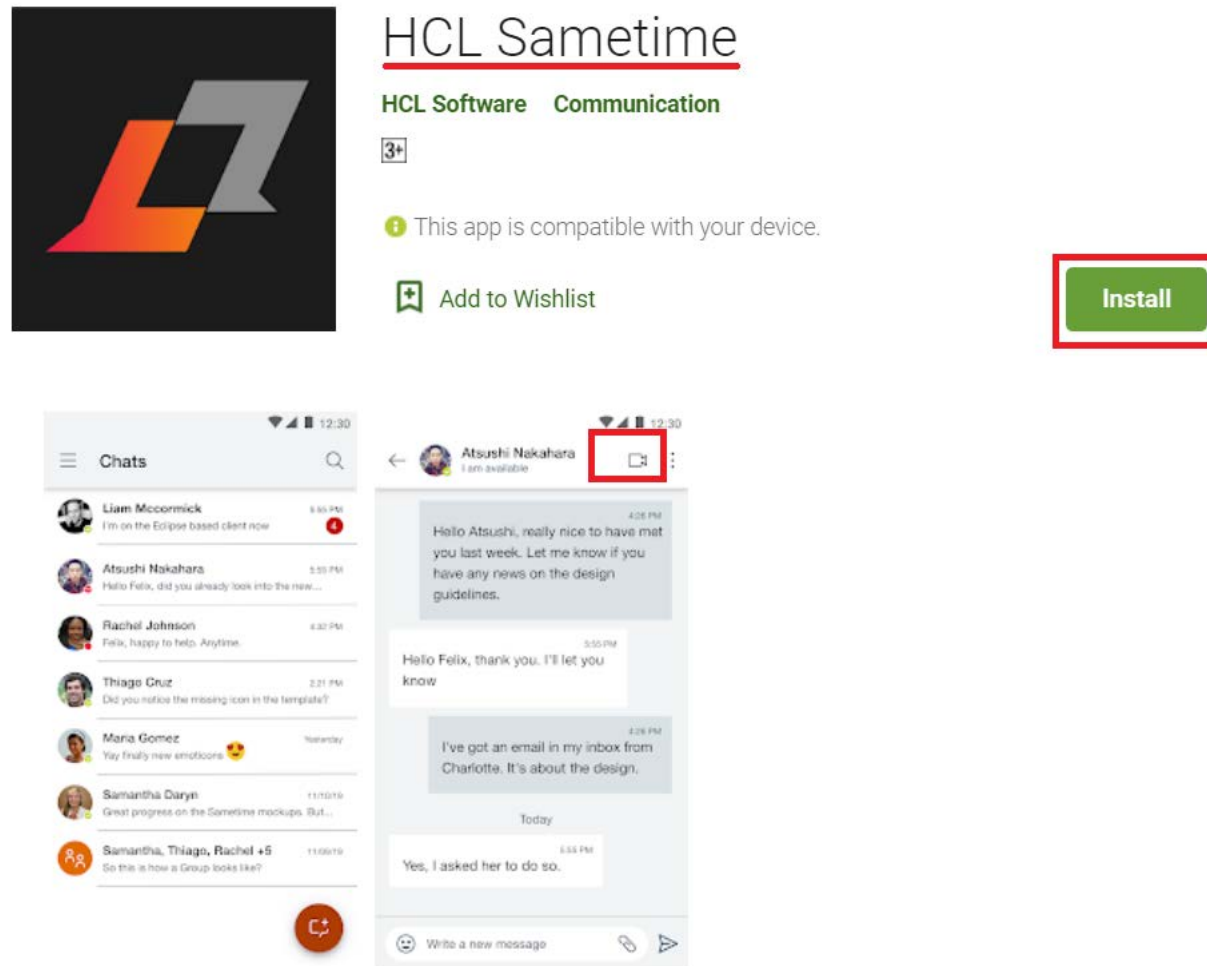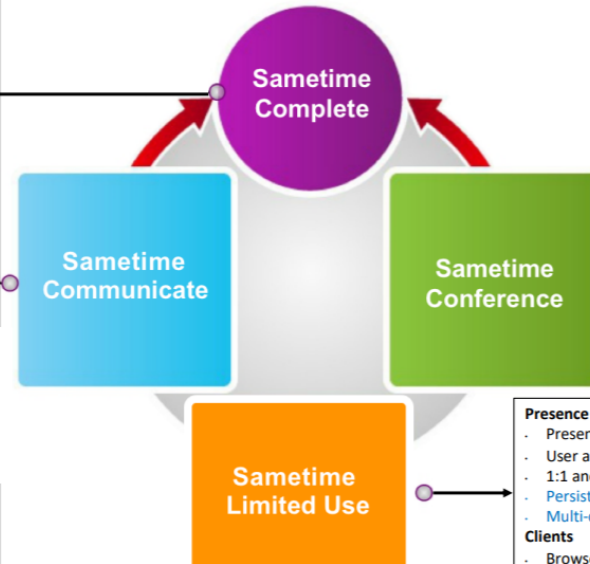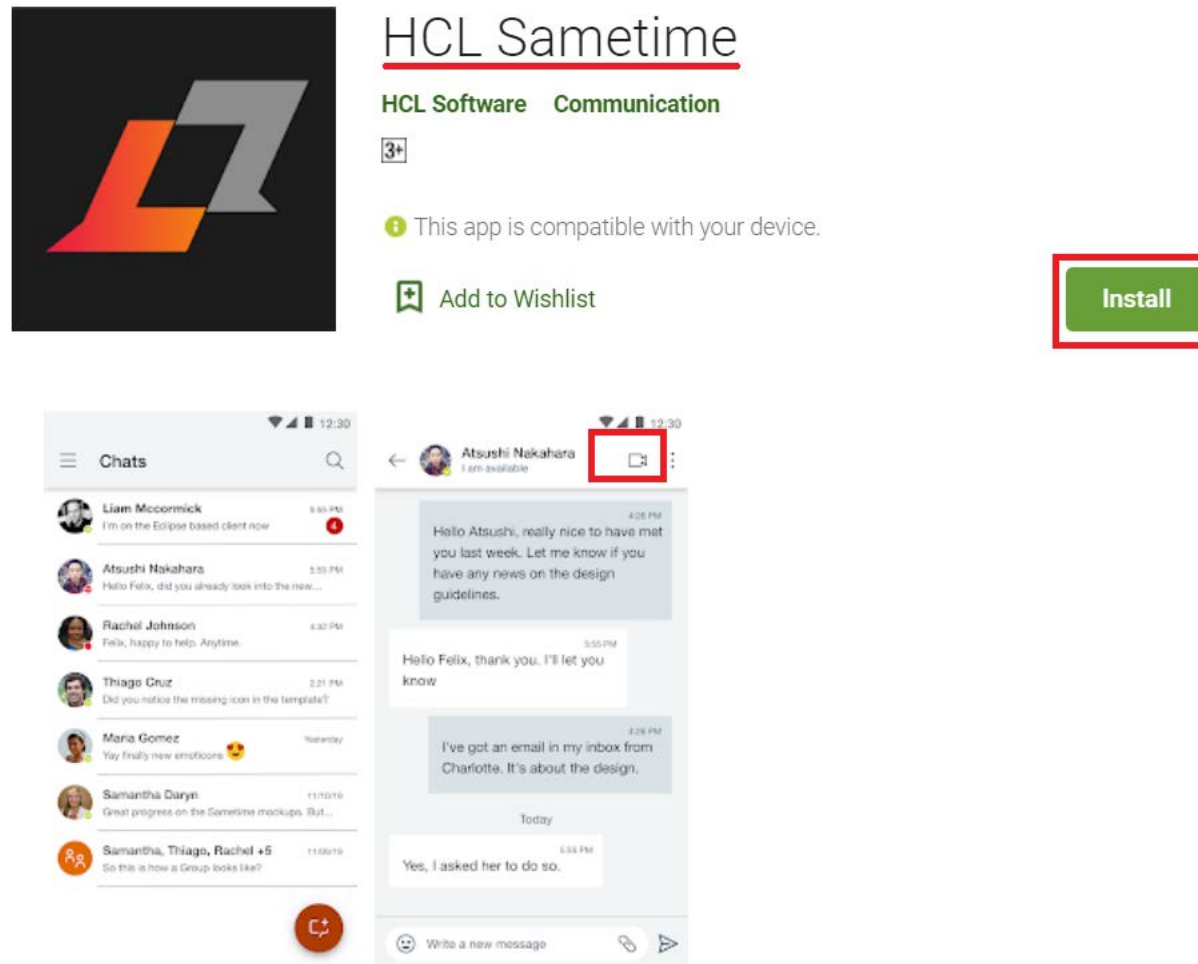              SIP: Session Initiation Protocol


                 atlanta.com  . . .  biloxi.com
            .        proxy              proxy        .
          .                                            .
  Alice's  . . . . . . . . . . . . . . . . . . . .  Bob's
  softphone                                         SIP Phone
          |                      |                      |
          |    INVITE F1         |                      |
          |--------------->|     INVITE F2              |
          |  100 Trying F3 |--------------->|   INVITE F4        |
          |<---------------|  100 Trying F5 |--------------->|
          |                |<------------ | 180 Ringing F6 |
          |                | 180 Ringing F7 |<---------------|
          | 180 Ringing F8 |<---------------|   200 OK F9    |
          |<---------------|   200 OK F10   |<---------------|
          |   200 OK F11   |<---------------|               |
          |<---------------|                |               |
          |                      ACK F12                    |
          |--------------------------------------------->|
          |                   Media Session                 |
          |<===============================================>|
          |                      BYE F13                    |
          |<---------------------------------------------|
          |                   200 OK F14                    |
          |--------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

(a) the wireless device using a module that is responsible for contacting a server to communicate with the server over a wireless link, wherein the	The wireless device (e.g., Smartphone) using a module (e.g., HCL Sametime application) that is responsible for contacting a server (e.g., HCL Sametime Server) to communicate with the server (e.g., HCL Sametime Server) over a wireless link (e.g., Wi-Fi/Cellular link), wherein the wireless device (e.g., Smartphone) includes the module (e.g., HCL Sametime application) that is implemented as software and that is downloadable to the wireless device (e.g., Smartphone).

| wireless device includes the module that is implemented as software and that is downloadable to the wireless device; |
https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en |

| | HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.

HCL Sametime works with your Sametime 10 and 11 server infrastructure.
https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en |

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference _plus:_

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use _plus:_

Presence and Instant Messaging
- Single, multi-file, and folder transfer
- Screen capture and annotations
- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
- Multi-device chat (v10)

Clients
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

| | ```
                    SIP: Session Initiation Protocol

                        atlanta.com  . . .  biloxi.com
                  .         proxy              proxy        .
                    .                                     .
          Alice's  . . . . . . . . . . . . . . . . . . Bob's
          softphone                                   SIP Phone
             |       INVITE F1     |                  |
             |------------------->|     INVITE F2     |
             |    100 Trying F3   |------------------>|    INVITE F4
             |<-----------------  |    100 Trying F5  |------------------>|
             |                    |<----------------  |  180 Ringing F6   |
             |                    |   180 Ringing F7  |<----------------- |
             |    180 Ringing F8  |<----------------- |    200 OK F9      |
             |<-----------------  |     200 OK F10    |<----------------- |
             |     200 OK F11     |<----------------- |                   |
             |<-----------------  |                   |                   |
             |                       ACK F12          |
             |---------------------------------------------------------->|
             |                     Media Session      |
             |<=========================================================>|
             |                       BYE F13          |
             |<----------------------------------------------------------|
             |                     200 OK F14         |
             |---------------------------------------------------------->|
``` https://tools.ietf.org/html/rfc3261 |
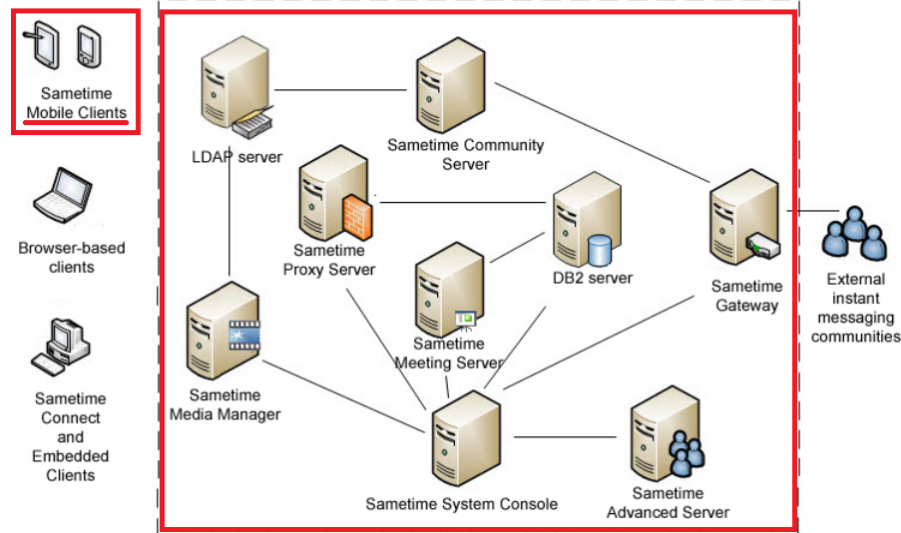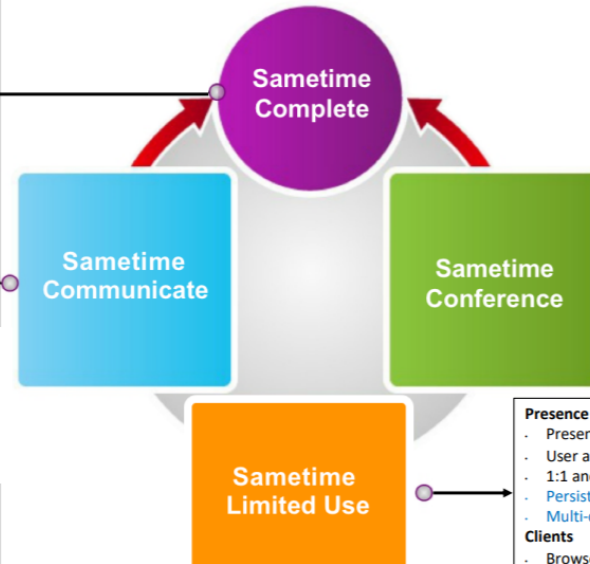| (b) the wireless device using the module to send, over the wireless link, data to the server that defines a call request; | The wireless device (e.g., Smartphone) using the module (e.g., HCL Sametime application) to send, over the wireless link (e.g., Wi-Fi/Cellular link), data to the server (e.g., HCL Sametime Server) that defines a call request (e.g., Invite signal from caller to server). |

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference plus:

Chat / Meetings Integration
· Multi-party video calls via Chat
· Instant screen / application sharing

Eclipse-based Meeting Experience
· Attend meetings
· Manage meeting rooms
· Calendar integration
· Drag-and-drop to invite participants from
  Contact List

Sametime Limited Use plus:

Presence and Instant Messaging
· Single, multi-file, and folder transfer
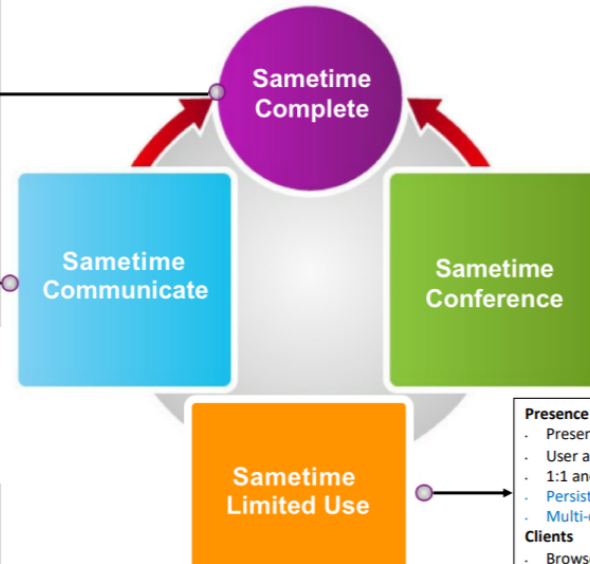· Screen capture and annotations
· Federation with 3rd-party services

Social Tools
· Community announcements
· Community chat
· Skill Tap
· Instant Polls
· Persistent chat rooms

Audio, Video and Telephony via Chat
· Peer-to-peer voice and video
· SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
· Reservation-less, persistent rooms
· Multiple rooms per user
· Document, screen, and application sharing
· Integration with Connections Files
· Polls, hand raise, annotation tools
· Recordings and meeting reports
· Meeting chat
· Meeting minutes and action items
· Lecture-mode meetings

Audio and Video via Meetings
· Multi-party voice and video
· Software Video MCU / Video Manager (Polycom)
· Dial-out to audio conferencing bridges
· Bandwidth management (meetings)

Clients
· Browser client
· Mobile clients (iOS, Android)

Integration
· Client and server-side toolkits

Presence and Instant Messaging
· Presence awareness including automated geographic awareness
· User alerts and privacy lists
· 1:1 and group chat
· Persistent chat (v10)
· Multi-device chat (v10)

Clients
· Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                    SIP: Session Initiation Protocol


                    atlanta.com  . . .  biloxi.com
                .      proxy              proxy       .
              .                                         .
         Alice's  . . . . . . . . . . . . . . . . .  Bob's
         softphone                                   SIP Phone
            |            INVITE F1   |                   |            |
            |--------------->|          INVITE F2        |            |
            |  100 Trying F3 |--------------->|        INVITE F4      |
            |<---------------|     100 Trying F5 |--------------->|
            |                |<--------------  | 180 Ringing F6 |
            |                |  180 Ringing F7 |<---------------|
            |  180 Ringing F8 |<--------------- |    200 OK F9   |
            |<---------------|     200 OK F10    |<---------------|
            |   200 OK F11    |<--------------- |                |
            |<---------------|                  |                |
            |                      ACK F12                        |
            |---------------------------------------------------->|
            |                    Media Session                    |
            |<===================================================>|
            |                      BYE F13                        |
            |<----------------------------------------------------|
            |                    200 OK F14                       |
            |---------------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

(c) in response to the call request, a software application running on the server deciding on the appropriate routing to a 3rd party end-user for that call request	In response to the call request (e.g., Invite signal from caller to server), a software application (e.g., software running at HCL Sametime server to route/manage calls) running on the server (e.g., HCL Sametime Server) deciding on the appropriate routing (e.g., Invite signal from server to callee) to a 3rd party end-user (e.g., Other users using HCL Sametime) for that call request (e.g., Invite signal from caller to server) without using the network operator's home or visitor location register.

| without using the network operator's home or visitor location register. | https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf |

```
                    SIP: Session Initiation Protocol


                    ┌─────────────────────────────────┐
                    │ atlanta.com  . . .  biloxi.com   │
              .     │   proxy               proxy      │    .
                .   └─────────────────────────────────┘  .
           Alice's  . . . . . . . . . . . . . . . . . . .  Bob's
           softphone                                       SIP Phone
          ┌──────────────────────────────────────────────────────────┐
          │    │     INVITE F1    │                 │                │ │
          │    │---------------->│     INVITE F2     │                │ │
          │    │  100 Trying F3  │---------------->│   INVITE F4     │ │
          │    │<---------------│    100 Trying F5  │--------------->│ │
          │    │                 │<-------------- │ 180 Ringing F6  │ │
          │    │                 │ 180 Ringing F7 │<--------------│ │
          │    │ 180 Ringing F8  │<--------------│   200 OK F9     │ │
          │    │<---------------│    200 OK F10   │<--------------│ │
          │    │   200 OK F11    │<--------------│                │ │
          │    │<---------------│                 │                │ │
          │    │                 ACK F12           │                │ │
          │    │------------------------------------------------->│ │
          │    │               Media Session       │                │ │
          │    │<================================================>│ │
          │    │                 BYE F13           │                │ │
          │    │<-------------------------------------------------│ │
          │    │                200 OK F14         │                │ │
          │    │------------------------------------------------->│ │
          └──────────────────────────────────────────────────────────┘
```
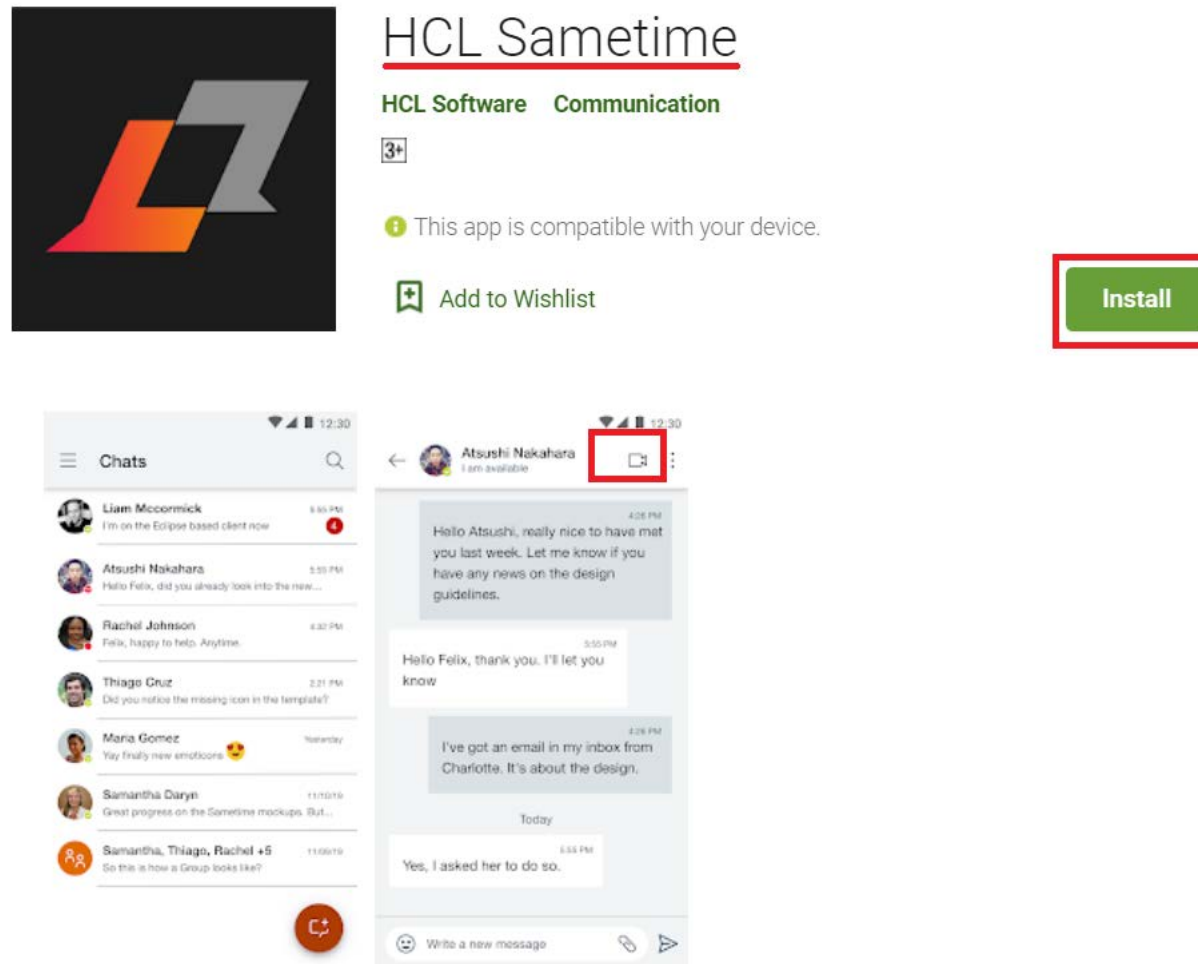https://tools.ietf.org/html/rfc3261

| 23. A system comprising a wireless device located in a region and a server for enabling the wireless device to communicate with the server to | The accused product discloses a system comprising a wireless device (e.g., Smartphone) located in a region and a server (e.g., HCL Sametime Server) for enabling the wireless device (e.g., Smartphone) to communicate with the server (e.g., HCL Sametime Server) to initiate a network connection (e.g., SIP Invite) without using a network operator's home location register that covers that region, wherein the server includes a software application (e.g., software running at HCL Sametime server to route/manage calls) that functions as a calls manager. |

initiate a network connection without using a network operator's home location register that covers that region, wherein the server includes a software application that functions as a calls manager, wherein:	 https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.
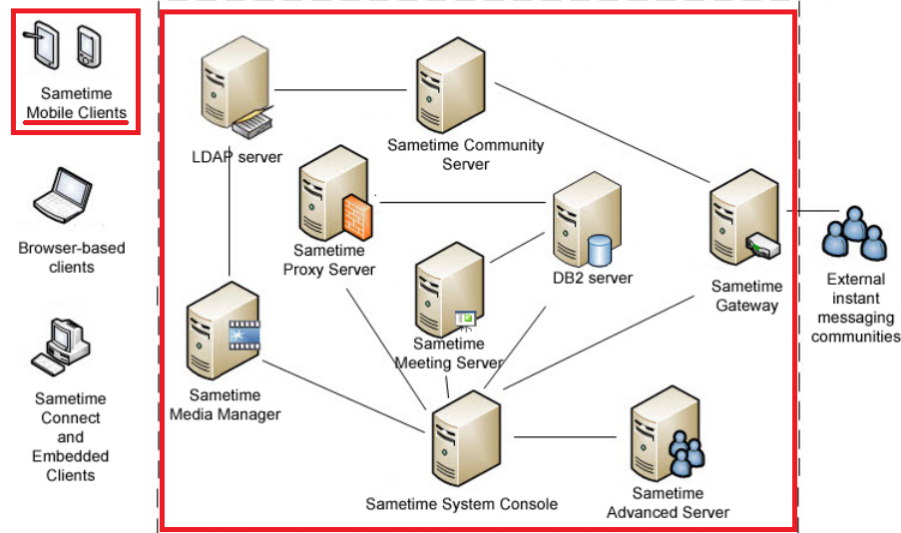
HCL Sametime works with your Sametime 10 and 11 server infrastructure.

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference *plus:*

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus:*

Presence and Instant Messaging
- Single, multi-file, and folder transfer
- Screen capture and annotations
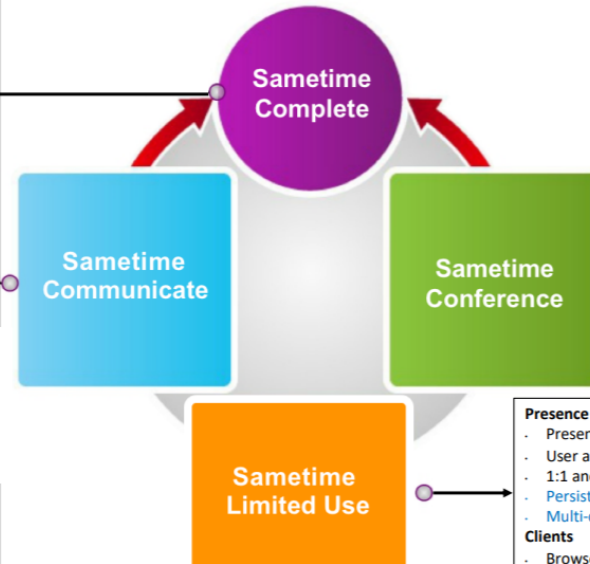- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
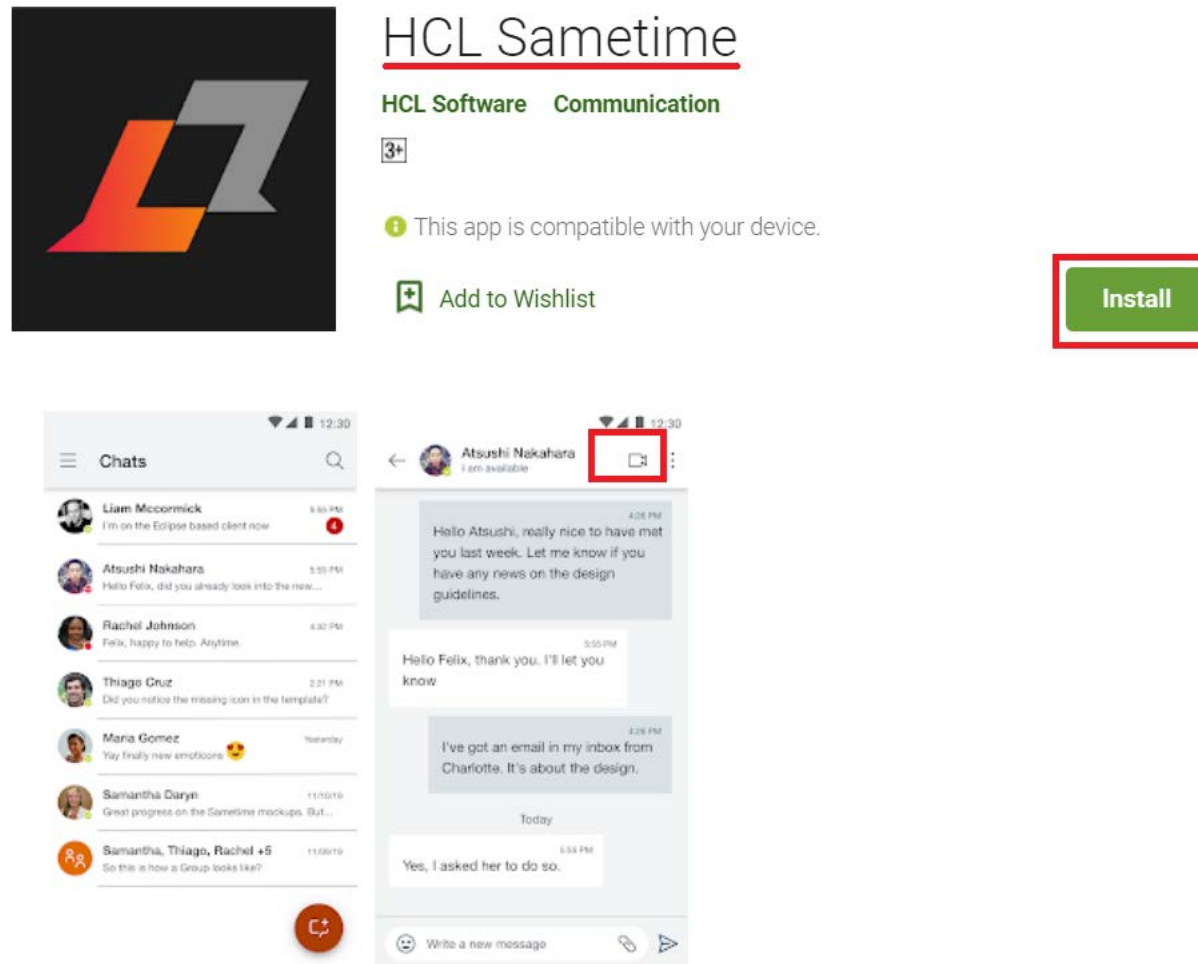- Multi-device chat (v10)

Clients
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                    SIP: Session Initiation Protocol


                        atlanta.com  . . .  biloxi.com
                    .       proxy              proxy       .
                  .                                          .
         Alice's  . . . . . . . . . . . . . . . . . .  Bob's
         softphone                                    SIP Phone

           |      INVITE F1   |                  |             |
           |----------------->|     INVITE F2    |             |
           |   100 Trying F3  |----------------->|   INVITE F4 |
           |<---------------- |    100 Trying F5 |------------>|
           |                  |<---------------- |  180 Ringing F6 |
           |                  |  180 Ringing F7  |<------------|
           |   180 Ringing F8 |<---------------- |   200 OK F9 |
           |<---------------- |     200 OK F10   |<------------|
           |      200 OK F11  |<---------------- |             |
           |<---------------- |                  |             |
           |                      ACK F12         |            |
           |------------------------------------------------->|
           |                     Media Session                |
           |<================================================>|
           |                      BYE F13                      |
           |<------------------------------------------------- |
           |                     200 OK F14                    |
           |------------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

(a) the wireless device is operable using a module that is responsible for contacting the server to communicate with the server over a wireless link, wherein the	The wireless device (e.g., Smartphone) is operable using a module (e.g., HCL Sametime application) that is responsible for contacting a server (e.g., HCL Sametime Server) to communicate with the server (e.g., HCL Sametime Server) over a wireless link (e.g., Wi-Fi/Cellular link), wherein the wireless device (e.g., Smartphone) includes the module (e.g., HCL Sametime application) that is implemented as software and that is downloadable to the wireless device (e.g., Smartphone).

| wireless device includes the module that is implemented as software and that is downloadable to the wireless device; | HCL Sametime
 HCL Software   Communication
 This app is compatible with your device.
 Add to Wishlist   Install

 https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en |

HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.
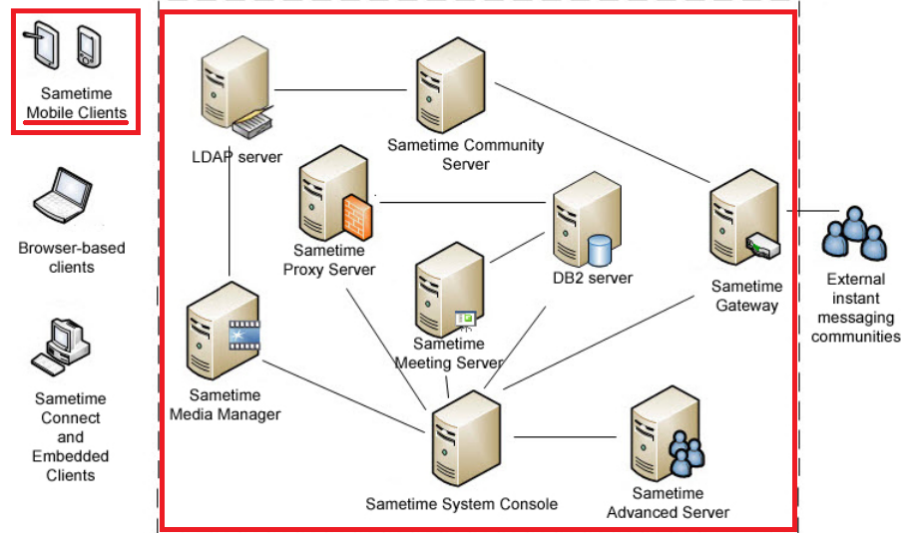
HCL Sametime works with your Sametime 10 and 11 server infrastructure.

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference *plus:*

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus:*

Presence and Instant Messaging
- Single, multi-file, and folder transfer
- Screen capture and annotations
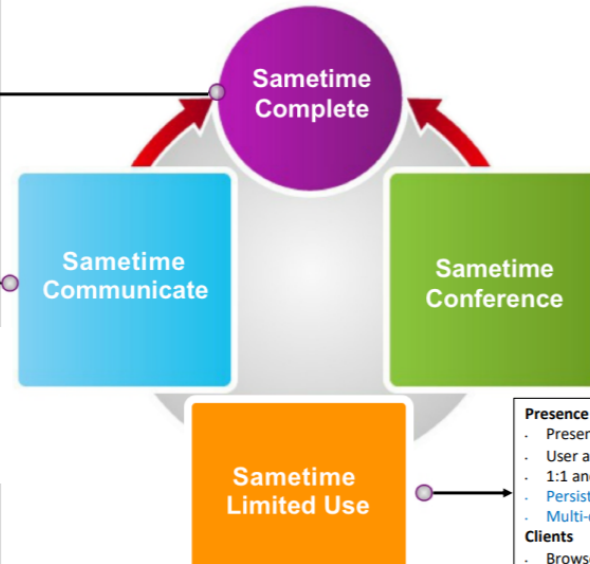- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
- Multi-device chat (v10)

Clients
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
               SIP: Session Initiation Protocol


                    atlanta.com  . . .  biloxi.com
              .        proxy               proxy        .
            .                                             .
     Alice's  . . . . . . . . . . . . . . . . . . . .  Bob's
     softphone                                         SIP Phone
        |           INVITE F1    |           |           |
        |---------------------->|   INVITE F2 |           |
        |    100 Trying F3  |---------------->|   INVITE F4 |
        |<-----------------|    100 Trying F5 |---------------->|
        |                  |<-------------- |  180 Ringing F6 |
        |                  |   180 Ringing F7 |<--------------|
        |   180 Ringing F8 |<--------------|    200 OK F9     |
        |<-----------------|    200 OK F10  |<--------------|
        |    200 OK F11    |<--------------|           |
        |<-----------------|           |           |
        |                            ACK F12             |
        |------------------------------------------------->|
        |                         Media Session            |
        |<================================================>|
        |                           BYE F13                |
        |<-------------------------------------------------|
        |                          200 OK F14              |
        |------------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

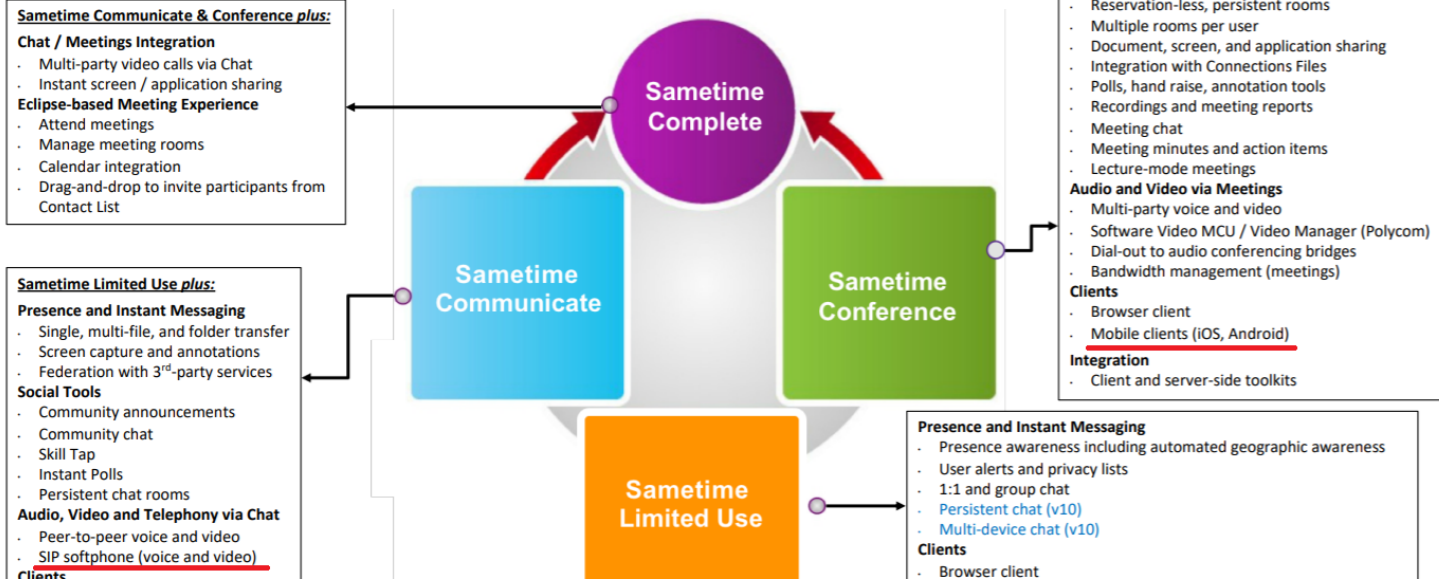| (b) the wireless device is operable using the module to send, over the wireless link, data to the server that defines a call request; | The wireless device (e.g., Smartphone) is operable using the module (e.g., HCL Sametime application) to send, over the wireless link (e.g., Wi-Fi/Cellular link), data to the server (e.g., HCL Sametime Server) that defines a call request (e.g., Invite signal from caller to server). |

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                      SIP: Session Initiation Protocol


                       atlanta.com  . . . biloxi.com
                 .        proxy              proxy        .
               .                                            .
         Alice's  . . . . . . . . . . . . . . . . . .  Bob's
         softphone                                      SIP Phone
            |           INVITE F1   |          |          |
            |--------------------->|  INVITE F2  |          |
            |   100 Trying F3 |--------------->|   INVITE F4  |
            |<---------------|   100 Trying F5 |-------------->|
            |                |<-------------- |  180 Ringing F6 |
            |                |  180 Ringing F7 |<--------------|
            |  180 Ringing F8 |<---------------|   200 OK F9   |
            |<---------------|   200 OK F10  |<--------------|
            |   200 OK F11  |<---------------|          |
            |<---------------|          |          |
            |                  ACK F12               |
            |-------------------------------------------------->|
            |                Media Session             |
            |<=================================================>|
            |                  BYE F13               |
            |<--------------------------------------------------|
            |                 200 OK F14              |
            |-------------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

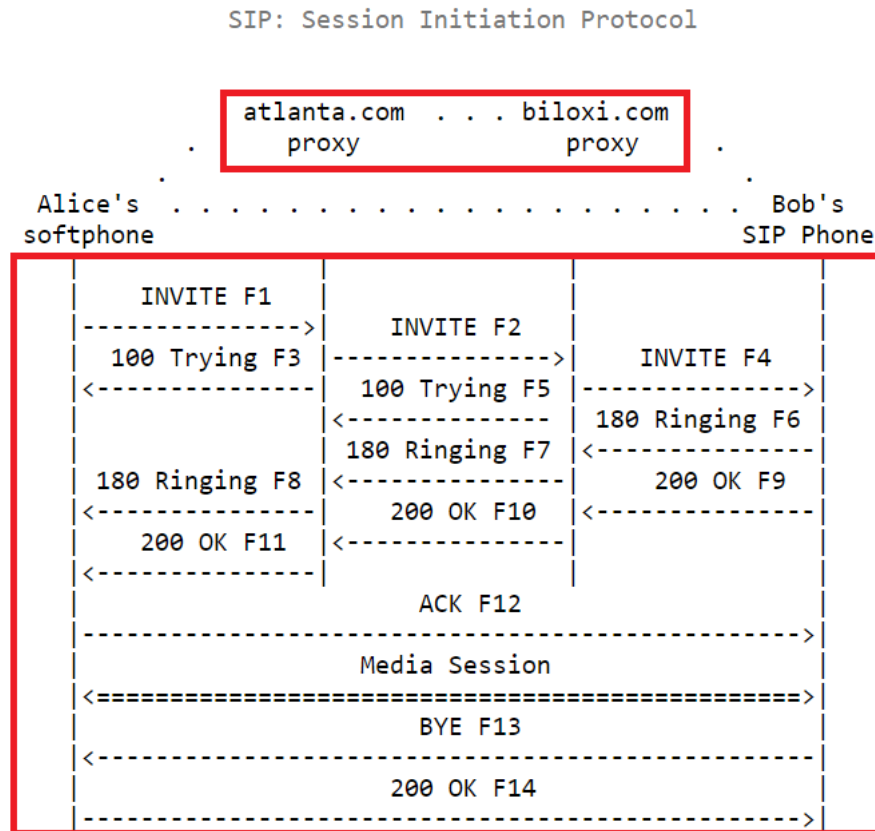|	
(c) in response to the call request, the calls manager software included on the server is operable to decide on the appropriate routing to a 3rd party end-user	In response to the call request (e.g., Invite signal from caller to server), the call manager software (e.g., software pertaining to SIP proxy running at HCL server to route/manage calls) included on the server (e.g., HCL Sametime Server) is operable to decide on the appropriate routing (e.g., Invite signal from server to callee) to a 3rd party end-user (e.g., Other users using HCL Sametime) for that call request without using the network operator's home or visitor location register.

for that call request without using the network operator's home or visitor location register.	https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

SIP: Session Initiation Protocol

https://tools.ietf.org/html/rfc3261

24. A server for enabling a wireless device to communicate with the server to initiate a network connection without using a network	The accused product discloses a server enabling a wireless device (e.g., Smartphone) to communicate with the server (e.g., HCL Sametime Server) to initiate a network connection (e.g., SIP invite) without using a network operator's home location register that covers that region, wherein the server includes a software application (e.g., software running at HCL Sametime server to route/manage calls) that functions as a calls manager.

operator's home location register, wherein the server includes a software application that functions as a calls manager, wherein:	 https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.
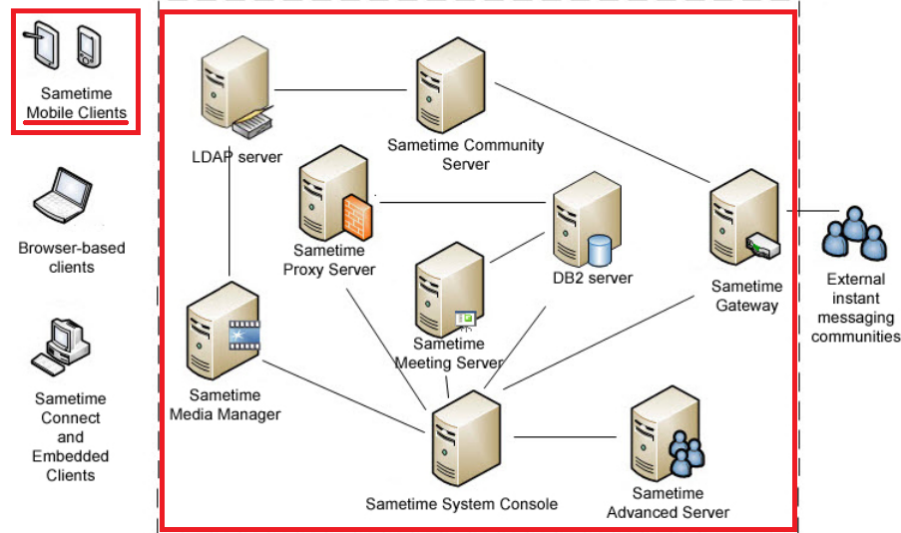
HCL Sametime works with your Sametime 10 and 11 server infrastructure.

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

Sametime Communicate & Conference *plus*:

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus*:

Presence and Instant Messaging
- Single, multi-file, and folder transfer
- Screen capture and annotations
- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
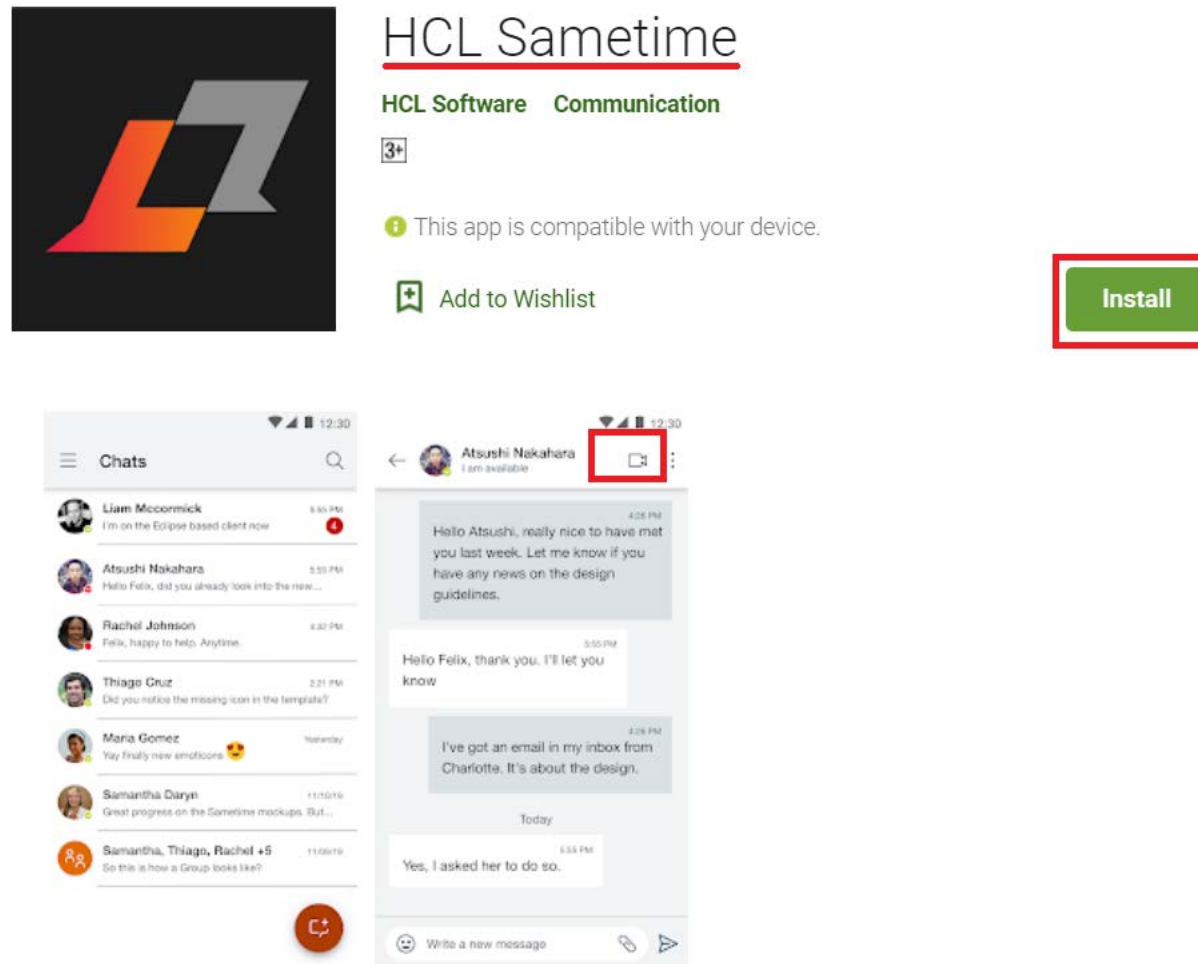- Persistent chat (v10)
- Multi-device chat (v10)

Clients
- Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

https://tools.ietf.org/html/rfc3261

(a) the wireless device is operable using a module that is responsible for contacting the server to communicate with the server over a wireless link, wherein the	The wireless device (e.g., Smartphone) is operable using a module (e.g., HCL Sametime application) that is responsible for contacting a server (e.g., HCL Sametime Server) to communicate with the server (e.g., HCL Sametime Server) over a wireless link (e.g., Wi-Fi/Cellular link), wherein the wireless device (e.g., Smartphone) includes the module (e.g., HCL Sametime application) that is implemented as software and that is downloadable to the wireless device (e.g., Smartphone).

wireless device includes the module that is implemented as software and that is downloadable to the wireless device;	**HCL Sametime** **HCL Software** **Communication** 3+ ⓘ This app is compatible with your device. 🔖 Add to Wishlist **Install** https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

HCL Sametime is a highly secure, persistent team chat app for the HCL Sametime platform. It allows users to communicate securely in real-time across devices on web, desktop or mobile.

It is ideal for cross-team chat in countries with strict data privacy and gravity laws, companies in regulated industries, and government entities who need to be able to ensure the security and auditability of their data. With v11, secure conversations just got a lot easier. From a new user experience to modernized industry-standard technologies, Sametime v11 the best, most feature-rich version yet.

HCL Sametime works with your Sametime 10 and 11 server infrastructure.

https://play.google.com/store/apps/details?id=com.hcl.android.sametime&hl=en

Sametime server architecture

A typical IBM® Sametime® deployment includes a cluster of servers for instant messaging on an IBM Domino®-based platform and other clustered servers running on IBM WebSphere® Application Server that support meetings, audio-visual services, and connections to a variety of clients.

The illustration shows the different types of servers and clients you can have in an IBM Sametime deployment. A Sametime deployment can be comprised of several types of Sametime servers and several types of Sametime clients.

https://help.hcltechsw.com/sametime/10.0/plan/over_server_arch.html

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference _plus:_

Chat / Meetings Integration
- Multi-party video calls via Chat
- Instant screen / application sharing

Eclipse-based Meeting Experience
- Attend meetings
- Manage meeting rooms
- Calendar integration
- Drag-and-drop to invite participants from Contact List

Sametime Limited Use _plus:_

Presence and Instant Messaging
- Single, multi-file, and folder transfer
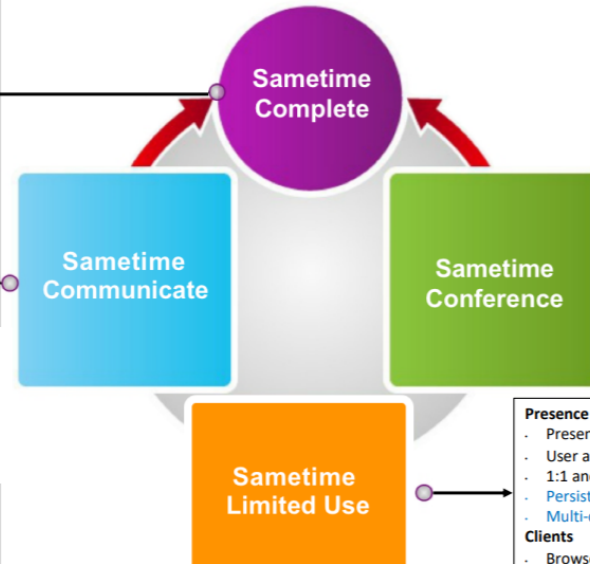- Screen capture and annotations
- Federation with 3rd-party services

Social Tools
- Community announcements
- Community chat
- Skill Tap
- Instant Polls
- Persistent chat rooms

Audio, Video and Telephony via Chat
- Peer-to-peer voice and video
- SIP softphone (voice and video)

Clients

Meetings
- Reservation-less, persistent rooms
- Multiple rooms per user
- Document, screen, and application sharing
- Integration with Connections Files
- Polls, hand raise, annotation tools
- Recordings and meeting reports
- Meeting chat
- Meeting minutes and action items
- Lecture-mode meetings

Audio and Video via Meetings
- Multi-party voice and video
- Software Video MCU / Video Manager (Polycom)
- Dial-out to audio conferencing bridges
- Bandwidth management (meetings)

Clients
- Browser client
- Mobile clients (iOS, Android)

Integration
- Client and server-side toolkits

Presence and Instant Messaging
- Presence awareness including automated geographic awareness
- User alerts and privacy lists
- 1:1 and group chat
- Persistent chat (v10)
- Multi-device chat (v10)

Clients
- Browser client

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                         SIP: Session Initiation Protocol


                          atlanta.com  . . .  biloxi.com
                    .         proxy              proxy       .
                        .                                  .
            Alice's  . . . . . . . . . . . . . . . . . .  Bob's
            softphone                                     SIP Phone
                    |               |             |             |
                    |   INVITE F1   |             |             |
                    |-------------->|   INVITE F2 |             |
                    |  100 Trying F3|------------>|   INVITE F4 |
                    |<--------------|  100 Trying F5|------------>|
                    |               |<------------ | 180 Ringing F6|
                    |               | 180 Ringing F7|<--------------|
                    | 180 Ringing F8|<------------- |   200 OK F9 |
                    |<--------------|   200 OK F10  |<--------------|
                    |   200 OK F11  |<------------- |             |
                    |<--------------|             |             |
                    |               |   ACK F12   |             |
                    |------------------------------------------->|
                    |               Media Session               |
                    |<=========================================>|
                    |                 BYE F13                   |
                    |<-------------------------------------------|
                    |                 200 OK F14                 |
                    |------------------------------------------->|
```

https://tools.ietf.org/html/rfc3261

| (b) the wireless device is operable using the module to send, over the wireless link, data to the server that defines a call request; | The wireless device (e.g., Smartphone) is operable using the module (e.g., HCL Sametime application) to send, over the wireless link (e.g., Wi-Fi/Cellular link), data to the server (e.g., HCL Sametime Server) that defines a call request (e.g., Invite signal from caller to server). |

IBM/HCL Sametime Product Family Today

HCL

Sametime Communicate & Conference *plus:*

Chat / Meetings Integration
· Multi-party video calls via Chat
· Instant screen / application sharing

Eclipse-based Meeting Experience
· Attend meetings
· Manage meeting rooms
· Calendar integration
· Drag-and-drop to invite participants from Contact List

Sametime Limited Use *plus:*

Presence and Instant Messaging
· Single, multi-file, and folder transfer
· Screen capture and annotations
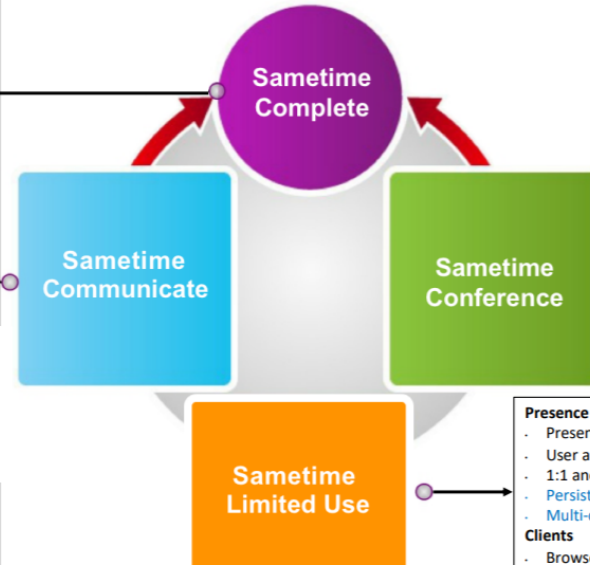· Federation with 3rd-party services

Social Tools
· Community announcements
· Community chat
· Skill Tap
· Instant Polls
· Persistent chat rooms

Audio, Video and Telephony via Chat
· Peer-to-peer voice and video
· SIP softphone (voice and video)

Clients

Sametime Complete

Sametime Communicate

Sametime Conference

Sametime Limited Use

Meetings
· Reservation-less, persistent rooms
· Multiple rooms per user
· Document, screen, and application sharing
· Integration with Connections Files
· Polls, hand raise, annotation tools
· Recordings and meeting reports
· Meeting chat
· Meeting minutes and action items
· Lecture-mode meetings

Audio and Video via Meetings
· Multi-party voice and video
· Software Video MCU / Video Manager (Polycom)
· Dial-out to audio conferencing bridges
· Bandwidth management (meetings)

Clients
· Browser client
· Mobile clients (iOS, Android)

Integration
· Client and server-side toolkits

Presence and Instant Messaging
· Presence awareness including automated geographic awareness
· User alerts and privacy lists
· 1:1 and group chat
· Persistent chat (v10)
· Multi-device chat (v10)

Clients
· Browser client

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                        SIP: Session Initiation Protocol


                          ┌─────────────────────────────┐
                          │  atlanta.com  . . .  biloxi.com │
                        . │    proxy              proxy    │  .
                       .  └─────────────────────────────┘   .
                      .                                       .
            Alice's  . . . . . . . . . . . . . . . . . . . .  Bob's
            softphone                                        SIP Phone
          ┌──────────────────────────────────────────────────────────┐
          │    │     INVITE F1    │                │                 │ │
          │    │---------------->│     INVITE F2    │                 │ │
          │    │  100 Trying F3  │---------------->│     INVITE F4    │ │
          │    │<---------------│    100 Trying F5  │---------------->│ │
          │    │                │<-------------- │  180 Ringing F6  │ │
          │    │                │  180 Ringing F7 │<---------------│ │
          │    │  180 Ringing F8 │<--------------│     200 OK F9    │ │
          │    │<---------------│    200 OK F10   │<---------------│ │
          │    │    200 OK F11   │<--------------│                 │ │
          │    │<---------------│                │                 │ │
          │    │                       ACK F12                      │ │
          │    │-------------------------------------------------->│ │
          │    │                    Media Session                   │ │
          │    │<=================================================>│ │
          │    │                       BYE F13                      │ │
          │    │<--------------------------------------------------│ │
          │    │                     200 OK F14                     │ │
          │    │-------------------------------------------------->│ │
          └──────────────────────────────────────────────────────────┘
```

https://tools.ietf.org/html/rfc3261

| (c) in response to the call request, the calls manager software included on the server is operable to decide on the appropriate routing to a 3rd party end-user | In response to the call request (e.g., Invite signal from caller to server), call manager software (e.g., software pertaining to SIP proxy running at HCL server to route/manage calls) included on the server (e.g., HCL Sametime Server) is operable to decide on the appropriate routing (e.g., Invite signal from server to callee) to a 3rd party end-user (e.g., Other users using HCL Sametime) for that call request (e.g., Invite signal from caller to server) without using the network operator's home or visitor location register. |

| for that call request without using that network operator's home or visitor location register. | |

https://www.cwpcollaboration.com/uploads/1/0/2/7/102707030/hcl_factory_tour_4_sametime_v11.pdf

```
                  SIP: Session Initiation Protocol


                  atlanta.com  . . .  biloxi.com
              .      proxy              proxy      .

Alice's  . . . . . . . . . . . . . . . . . .  Bob's
softphone                                      SIP Phone
    |    INVITE F1    |                |             |
    |---------------->|    INVITE F2   |             |
    |  100 Trying F3  |--------------->|   INVITE F4 |
    |<----------------| 100 Trying F5  |------------>|
    |                 |<-------------  | 180 Ringing F6 |
    |                 | 180 Ringing F7 |<--------------|
    | 180 Ringing F8  |<---------------|   200 OK F9 |
    |<----------------|    200 OK F10  |<------------|
    |    200 OK F11   |<-------------- |             |
    |<----------------|                |             |
    |                       ACK F12                  |
    |----------------------------------------------->|
    |                     Media Session              |
    |<==============================================>|
    |                       BYE F13                  |
    |<-----------------------------------------------|
    |                     200 OK F14                 |
    |----------------------------------------------->|
```
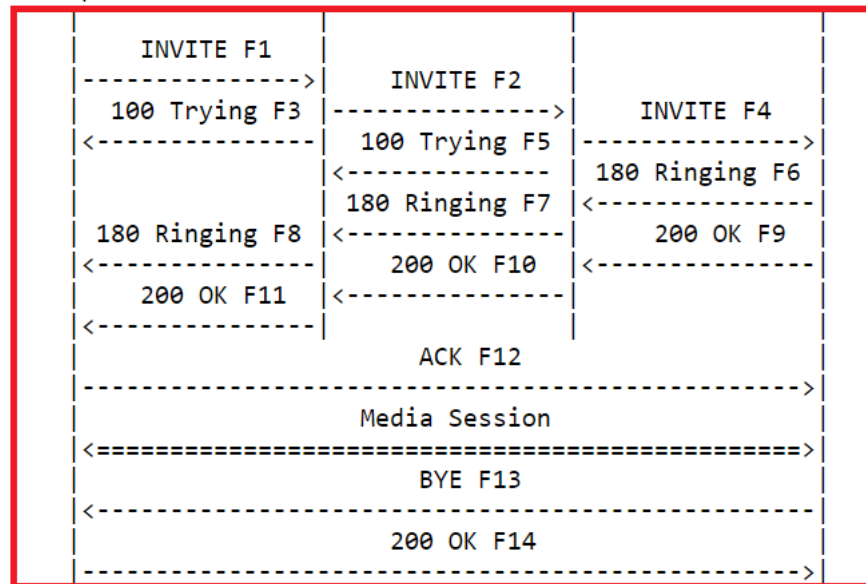
https://tools.ietf.org/html/rfc3261